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CURRENT INDUSTRIAL REPORTS

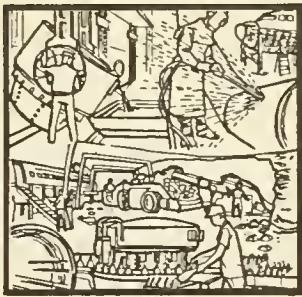
Manufacturers' Shipments, Inventories, and Orders

December 1972

U. S. DEPARTMENT OF COMMERCE • Social and Economic Statistics Administration • BUREAU OF THE CENSUS

FOR RELEASE: February 2, 1973

SERIES: M3-1(72)-12



SUMMARY

New orders for manufactured products in December decreased \$270 million or 0.4 percent to \$67.32 billion from \$67.59 billion in November, after seasonal adjustment. Shipments in December decreased \$255 million or 0.4 percent to \$66.30 billion. Since new orders exceeded shipments, unfilled orders increased \$1.02 billion or 1.2 percent to \$84.97 billion at the end of December. Manufacturers' inventories increased \$810 million or 0.8 percent to \$107.18 billion at the end of December. The inventories to shipments ratio increased from 1.60 to 1.62.

For the 3 months ending in December, the average month to month change in new orders was a 0.8 percent increase compared with a 1.1 percent increase for the 3 months ending in September and a 1.4 percent increase for the 3 months ending in June.

NEW ORDERS

New orders for durable goods decreased \$345 million or 0.9 percent to \$37.27 billion in December. Decreases in new orders were reported by motor vehicles and parts (\$380 million)¹, electrical machinery (\$190 million) and aircraft and parts (\$185 million). These decreases were partially offset by increases in fabricated metal products (\$220 million) and nonelectrical machinery (\$150 million).

SHIPMENTS

Shipments of durable goods decreased \$415 million or 1.1 percent to \$36.34 billion in December. The December decline in shipments was due primarily to decreases in motor vehicles and parts (\$375 million), electrical machinery (\$100 million) and aircraft and parts (\$100 million).

¹It should be noted that new orders for the motor vehicles industry are not reported as such but are estimated as equal to shipments. Hence a sizeable decrease in shipments is necessarily accompanied by a similar decrease in new orders.

These decreases were partially offset by increases in primary metals (\$255 million) and non-electrical machinery (\$105 million). Shipments of nondurable goods manufacturers increased \$160 million, or 0.5 percent, to \$29.96 billion from \$29.80 billion in November.

UNFILLED ORDERS

Unfilled orders of durable goods increased \$935 million or 1.2 percent to \$80.98 billion at the end of December, led by nonelectrical machinery (\$535 million), electrical machinery (\$155 million) and fabricated metal products (\$140 million).

INVENTORIES

Inventories of durable goods and nondurable goods increased \$550 million and \$260 million respectively in December. At the all manufacturing level, materials and supplies increased \$165 million, goods in process increased \$530 million and finished goods increased \$115 million.

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for January is scheduled for release on February 22, 1973 and the full report is scheduled for release on March 5, 1973.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Shipments						Total inventories					
	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment ¹		
	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1971	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1972 ^p	Nov. 1972 ^r	Dec. 1971
All manufacturing industries:												
Total.....	66,299	66,553	64,725	63,360	66,310	55,321	107,181	106,371	106,008	106,775	105,849	101,293
Total, excluding transportation.....	57,999	57,756	55,966	55,146	57,023	48,499	90,423	89,790	89,522	90,107	89,132	86,202
Durable goods industries, total.	36,336	36,750	36,086	34,755	36,557	29,696	70,192	69,641	69,330	69,741	69,233	65,446
Stone, clay, and glass products.	2,154	2,149	2,130	1,923	2,114	1,575	2,388	2,378	2,385	2,330	2,270	2,226
Primary metals, total.....	6,002	5,747	5,752	5,471	5,437	4,209	9,578	9,617	9,664	9,763	9,699	9,378
Blast furnaces, steel mills.....	3,042	2,933	2,916	2,723	2,675	1,959	5,255	5,321	5,347	5,454	5,433	5,087
Nonferrous metals.....	2,169	2,058	2,110	2,019	2,025	1,693	3,410	3,390	3,434	3,403	3,383	3,456
All other primary metals....	791	756	726	729	737	557	913	906	883	906	883	835
Fabricated metal products total.....	3,497	3,490	3,562	3,377	3,448	3,088	7,553	7,541	7,605	7,400	7,362	7,115
Metal cans, barrels, and drums.....	411	433	440	357	380	350	663	680	672	609	629	674
Machinery, except electrical, total.....	6,039	5,933	5,779	5,826	5,602	5,127	14,218	13,944	13,717	14,190	13,864	13,467
Engines and turbines.....	459	428	418	514	414	540	1,340	1,316	1,323	1,344	1,338	1,232
Farm machinery and equipment.	622	679	631	499	509	390	1,202	1,196	1,186	1,210	1,171	1,057
Construction, mining, and material handling equipment.	977	971	944	849	885	729	2,794	2,621	2,574	2,816	2,600	2,643
Metalworking machinery.....	467	411	411	490	401	383	1,226	1,227	1,173	1,213	1,226	1,151
General industrial machinery	495	473	467	479	445	412	1,200	1,196	1,179	1,190	1,176	1,125
Electrical machinery, total...	4,975	5,075	4,833	5,022	5,224	4,544	10,363	10,323	10,262	10,179	10,207	9,671
Electrical transmission and distribution equipment and industrial apparatus.....	932	958	924	930	958	905	2,312	2,275	2,234	2,304	2,252	2,082
Household appliances.....	727	713	655	662	680	570	1,060	1,066	1,057	1,044	1,033	1,073
Radio and TV.....	482	512	438	526	574	428	943	923	926	882	908	701
Communication equipment....	1,223	1,231	1,145	1,272	1,251	1,233	2,938	2,983	2,971	2,903	2,974	2,921
Transportation equipment, total	8,300	8,797	8,759	8,214	9,287	6,822	16,758	16,581	16,486	16,668	16,717	15,091
Motor vehicles and parts....	5,455	5,831	5,653	5,118	6,248	4,151	4,292	4,297	4,358	4,318	4,374	3,953
Aircraft, missiles, and parts.....	2,001	2,099	2,145	2,242	2,181	1,856	9,506	9,366	9,263	9,394	9,387	8,796
Shipbuilding and railroad equipment.....	517	538	632	573	551	603	2,294	2,222	2,179	2,294	2,285	1,717
Instruments and related products, total.....	1,091	1,126	1,087	1,097	1,152	990	2,619	2,625	2,613	2,541	2,569	2,380
Scientific and engineering.....	541	550	565	530	543	485	1,548	1,525	1,515	1,518	1,514	1,414
All other instruments and related products.....	550	576	522	567	609	505	1,071	1,090	1,098	1,023	1,055	966
All other durable goods industries.....	4,278	4,433	4,184	3,825	4,293	3,341	6,715	6,632	6,568	6,670	6,545	6,118
Nondurable goods industries, total.....	29,963	29,803	28,639	28,605	29,753	25,625	36,989	36,730	36,678	37,034	36,616	35,847
Food and kindred products, total.....	10,009	9,869	9,411	9,938	9,961	8,883	9,333	9,294	9,322	9,628	9,728	9,460
Meat products.....	2,342	2,296	2,025	2,323	2,229	2,107	831	859	882	839	874	824
Fats and oils.....	642	589	573	614	615	456	727	752	728	776	807	782
Tobacco products.....	511	549	533	505	547	479	2,433	2,390	2,329	2,540	2,385	2,333
Textile mill products.....	2,516	2,426	2,214	2,100	2,485	2,077	3,825	3,867	3,859	3,720	3,689	3,524
Paper and allied products, total.....	2,392	2,453	2,412	2,268	2,416	2,077	2,812	2,793	2,786	2,803	2,745	2,760
Pulp, paper, etc.....	953	1,015	985	926	995	849	1,020	1,010	1,023	1,018	999	1,067
Paperboard containers.....	701	707	680	655	700	628	849	836	837	832	830	815
All other paper containers..	738	731	747	687	721	600	943	947	926	953	916	878
Chemicals and allied products, total.....	5,269	4,983	4,907	4,722	4,818	4,026	6,835	6,831	6,801	6,859	6,722	6,720
Industrial chemicals, except pigments.....	1,620	1,540	1,477	1,479	1,476	1,281	1,877	1,907	1,898	1,909	1,897	1,937
Drugs, soap, and toiletries.	1,551	1,509	1,507	1,424	1,490	1,299	2,232	2,183	2,162	2,201	2,127	2,075
Petroleum and coal products...	2,482	2,476	2,377	2,494	2,468	2,149	2,241	2,264	2,261	2,273	2,296	2,298
Rubber and plastics products, n.e.c.....	1,440	1,546	1,536	1,328	1,493	1,314	2,346	2,277	2,255	2,346	2,271	2,152
All other nondurable goods industries.....	5,344	5,501	5,249	4,950	5,565	4,620	7,164	7,014	7,065	6,865	6,780	6,600

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP--Continued

(Millions of dollars)

Industry group	New orders						Unfilled orders					
	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment ¹		
	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1972 ^p	Nov. 1972 ^r	Dec. 1971	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1972 ^p	Nov. 1972 ^r	Dec. 1971
All manufacturing industries:												
Total.....	67,319	67,587	65,454	64,685	67,102	55,663	84,965	83,947	82,906	84,346	83,015	72,478
Total, excluding transportation.....	58,939	58,738	56,464	56,397	57,716	48,692	59,963	59,025	58,037	59,289	58,032	51,162
Durable goods industries, total.	37,272	37,619	36,759	36,052	37,167	30,026	80,982	80,047	79,174	80,416	79,115	69,415
Primary metals, total.....	5,982	5,914	5,727	5,814	5,775	4,506	8,482	8,503	8,335	8,285	7,942	5,907
Blast furnaces, steel mills.....	2,992	3,008	2,927	2,965	2,946	2,203	5,331	5,381	5,305	5,187	4,945	3,339
Nonferrous metals.....	2,177	2,132	2,023	2,091	2,069	1,722	2,061	2,053	1,979	2,016	1,944	1,707
Fabricated metal products.....	3,637	3,417	3,554	3,529	3,339	3,085	10,165	10,025	10,097	10,155	10,002	9,423
Machinery, except electrical, total.....	6,575	6,423	6,074	6,370	6,014	5,157	15,506	14,969	14,477	15,391	14,846	12,539
Engines and turbines.....	715	591	479	774	547	568	4,375	4,119	3,956	4,358	4,096	3,457
Construction, mining, and material handling equipment.....	1,100	1,055	957	936	934	800	2,800	2,677	2,593	2,721	2,634	2,384
Metalworking machinery.....	512	500	450	532	479	372	1,337	1,292	1,203	1,338	1,297	959
General industrial machinery.....	541	526	561	547	503	432	1,536	1,489	1,436	1,523	1,455	1,250
Electrical machinery, total...	5,132	5,322	5,174	5,236	5,207	4,467	15,313	15,157	14,910	15,189	14,975	14,325
Electrical transmission and distribution equipment and industrial apparatus.....	987	1,044	984	1,023	1,016	911	4,365	4,311	4,225	4,342	4,249	3,832
Household appliances.....	736	704	665	672	664	567	161	152	161	151	141	127
Radio and TV.....	458	518	466	534	488	404	682	707	701	649	641	454
Communication equipment.....	1,214	1,314	1,304	1,237	1,207	1,190	5,868	5,877	5,794	5,845	5,880	6,228
Transportation equipment, total.....	8,380	8,849	8,990	8,288	9,386	6,971	25,002	24,922	24,869	25,057	24,983	21,316
Aircraft, missiles, and parts.....	1,994	2,178	2,228	2,219	2,201	2,014	16,637	16,645	16,564	16,516	16,539	14,207
Shipbuilding and railroad equipment.....	569	472	634	580	484	457	5,520	5,467	5,534	5,597	5,590	4,688
All other durable goods industries.....	7,566	7,694	7,240	6,815	7,446	5,840	6,514	6,471	6,486	6,339	6,367	5,905
Nondurable goods industries, total.....	30,047	29,968	28,695	28,633	29,935	25,637	3,983	3,900	3,732	3,930	3,900	3,063
Industries with unfilled orders.....	7,914	8,049	7,710	7,643	8,214	6,859	3,983	3,900	3,732	3,930	3,900	3,063
Industries without unfilled orders.....	22,133	21,919	20,985	20,990	21,721	18,778	-	-	-	-	-	-

^p Represents zero. ^r Preliminary. ^r Revised.¹ Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1972 ^p	Nov. 1972 ^r	Dec. 1971	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1972 ^p	Nov. 1972 ^r	Dec. 1971
	Shipments						Total inventories					
All manufacturing industries, total..	66,299	66,553	64,725	63,360	66,310	55,321	107,181	106,371	106,008	106,775	105,849	101,293
Durable goods industries, total.....	36,336	36,750	36,086	34,755	36,557	29,696	70,192	69,641	69,330	69,741	69,233	65,446
Nondurable goods industries, total.....	29,963	29,803	28,639	28,605	29,753	25,625	36,989	36,730	36,678	37,034	36,616	35,847
Industry groups arranged by market categories:												
Home goods and apparel.....	6,930	7,020	6,439	6,168	6,971	5,361	11,812	11,633	11,593	11,393	11,188	10,471
Consumer staples.....	12,680	12,605	12,130	12,519	12,736	11,412	14,410	14,259	14,236	14,706	14,544	14,263
Equipment and defense products, except automotive.....	9,392	9,464	9,287	9,483	9,233	8,401	28,221	27,815	27,452	28,065	27,766	26,198
Automotive equipment.....	6,223	6,610	6,410	5,790	6,972	4,734	5,742	5,759	5,806	5,756	5,793	5,250
Construction materials, supplies, and intermediate products.....	5,762	5,772	5,699	5,215	5,643	4,589	8,667	8,577	8,653	8,548	8,384	8,066
Other materials and supplies and intermediate products.....	25,312	25,082	24,760	24,185	24,755	20,824	38,329	38,328	38,268	38,307	38,174	37,045
Supplementary series: ²												
Household durable goods industries.....	3,228	3,310	3,016	3,018	3,298	2,540	5,496	5,411	5,373	5,339	5,265	4,840
Capital goods industries.....	10,908	11,008	10,897	11,187	11,029	10,070	31,691	31,165	30,806	31,483	31,138	29,468
Nondefense.....	9,171	9,207	9,038	9,234	9,146	8,319	25,652	25,242	24,940	25,583	25,165	24,240
Defense*.....	1,737	1,801	1,859	1,953	1,883	1,751	6,039	5,923	5,866	5,900	5,973	5,228
	New orders						Unfilled orders					
All manufacturing industries, total..	67,319	67,587	65,454	64,685	67,102	55,663	84,965	83,947	82,906	84,346	83,015	72,478
Durable goods industries, total.....	37,272	37,619	36,759	36,052	37,167	30,026	80,982	80,047	79,174	80,416	79,115	69,415
Nondurable goods industries, total.....	30,047	29,968	28,695	28,633	29,935	25,637	3,983	3,900	3,732	3,930	3,900	3,063
Industry groups arranged by market categories:												
Home goods and apparel.....	6,844	6,935	6,520	6,062	6,791	5,237	2,520	2,601	2,680	2,429	2,528	2,145
Consumer staples.....	12,687	12,609	12,125	12,525	12,747	11,419						
Equipment and defense products, except automotive.....	10,298	10,043	9,585	10,377	9,394	8,427	43,729	42,785	42,169	43,643	42,659	38,310
Automotive equipment.....	6,258	6,649	6,556	5,880	7,118	4,871						
Construction materials, supplies, and intermediate products.....	5,969	5,724	5,661	5,335	5,525	4,515	9,899	9,692	9,740	9,735	9,613	9,087
Other materials and supplies and intermediate products.....	25,263	25,627	25,007	24,506	25,527	21,194	28,817	28,869	28,317	28,539	28,215	22,936
Supplementary series: ²												
Household durable goods industries.....	3,147	3,210	3,094	2,937	3,101	2,419	2,057	2,139	2,238	1,981	2,062	1,738
Capital goods industries.....	11,655	11,676	11,359	11,886	11,361	10,094	49,939	49,191	48,522	49,740	49,040	43,306
Nondefense.....	9,968	9,762	9,694	9,984	9,584	8,176	29,797	29,000	28,444	29,515	28,763	25,140
Defense*.....	1,687	1,914	1,665	1,902	1,777	1,918	20,142	20,191	20,078	20,225	20,277	18,166

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in the defense series. ^pPreliminary. ^rRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. ²The supplementary series are regroupings of the separate industry categories as follows:

- Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.
- Capital goods industries - The capital goods industries series is comparable to the previous Producers' Capital Goods and the Defense Products (old series) categories.
- Nondefense products - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances and electronic components), and the nondefense portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft and aircraft parts, and ordnance.
- Defense products - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, aircraft and aircraft parts, and shipbuilding. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES
(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1966-1971	
	Nov.- Dec. 1972	Oct.- Nov. 1972	Sept.- Oct. 1972	3 months		12 months	Average rise	Average decline	
				Sept.-Dec. 1972	June-Sept. 1972	Mar.-June 1972			
Shipments:									
All manufacturing industries.....	-0.4	+2.8	+1.3	+1.2	+1.5	+0.5	+1.2	+1.3	-1.2
Durable goods industries, total.....	-1.1	+1.8	+3.0	+1.2	+1.9	+0.5	+1.4	+2.1	-1.8
Nondurable goods industries, total.....	+0.5	+4.1	-0.8	+1.3	+0.9	+0.5	+0.9	+0.8	-0.5
Total inventories:									
All manufacturing industries.....	+0.8	+0.3	+0.5	+0.5	+0.6	+0.4	+0.5	+0.5	-0.2
New orders:									
All manufacturing industries.....	-0.4	+3.3	-0.5	+0.8	+1.1	+1.4	+1.3	+1.9	-1.2
Durable goods industries, total.....	-0.9	+2.3	-0.2	+0.4	+1.2	+2.2	+1.6	+2.9	-2.6
Nondurable goods industries, total.....	+0.3	+4.4	-0.8	+1.3	+0.9	+0.4	+0.9	+0.9	-0.5
Unfilled orders:									
Durable goods industries, total.....	+1.2	+1.1	+0.9	+1.1	+1.5	+1.6	+1.2	+0.8	-1.1

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Dec. 1972 ^P	Nov. 1972 ^R	Oct. 1972	Dec. 1972 ^P	Nov. 1972 ^R	Dec. 1971	Dec. 1972 ^P	Nov. 1972 ^R	Oct. 1972	Dec. 1972 ^P	Nov. 1972 ^R	Dec. 1971
	Total						Materials and supplies					
All manufacturing industries, total.....	107,181	106,371	106,008	106,775	105,849	101,293	33,715	33,548	33,379	34,152	33,606	33,114
Durable goods industries, total.....	70,192	69,641	69,330	69,741	69,233	65,446	19,919	19,812	19,701	20,084	19,830	19,314
Stone, clay, and glass products.....	2,388	2,378	2,385	2,330	2,270	2,226	763	790	794	770	785	760
Primary metals.....	9,578	9,617	9,664	9,763	9,699	9,378	3,424	3,460	3,440	3,602	3,576	3,673
Machinery (electrical and nonelectrical).....	24,581	24,267	24,009	24,369	24,071	23,138	6,658	6,515	6,389	6,667	6,445	6,259
Transportation equipment.....	16,758	16,581	16,486	16,668	16,717	15,091	2,776	2,807	2,900	2,812	2,852	2,967
All other durable goods industries.....	16,887	16,798	16,786	16,611	16,476	15,613	6,298	6,240	6,178	6,233	6,172	5,655
Nondurable goods industries, total.....	36,989	36,730	36,678	37,034	36,616	35,847	13,796	13,736	13,678	14,068	13,776	13,800
Chemicals and allied products.....	6,835	6,831	6,801	6,859	6,722	6,720	2,307	2,318	2,309	2,332	2,309	2,312
Petroleum and coal products.....	2,241	2,264	2,261	2,273	2,296	2,298	535	532	520	536	525	539
Rubber and plastics products, n.e.c.....	2,346	2,277	2,255	2,346	2,271	2,152	666	645	642	666	657	631
All other nondurable goods industries.....	25,567	25,358	25,361	25,556	25,327	24,677	10,288	10,241	10,207	10,534	10,285	10,318
Work in process												
All manufacturing industries, total.....	38,449	37,921	37,675	37,986	37,862	34,546	35,017	34,902	34,954	34,637	34,361	33,633
Durable goods industries, total.....	32,724	32,321	32,070	32,391	32,330	29,320	17,549	17,508	17,559	17,266	17,073	16,812
Stone, clay, and glass products.....	256	301	301	242	278	280	1,369	1,287	1,290	1,318	1,207	1,186
Primary metals.....	3,322	3,303	3,350	3,340	3,321	3,056	2,832	2,854	2,874	2,821	2,802	2,649
Machinery (electrical and nonelectrical).....	11,027	10,847	10,697	10,922	10,847	10,171	6,896	6,905	6,923	6,780	6,779	6,708
Transportation equipment.....	12,808	12,537	12,348	12,694	12,624	10,766	1,174	1,237	1,238	1,162	1,241	1,358
All other durable goods industries.....	5,311	5,333	5,374	5,193	5,260	5,047	5,278	5,225	5,234	5,185	5,044	4,911
Nondurable goods industries, total.....	5,725	5,600	5,605	5,595	5,552	5,226	17,468	17,394	17,395	17,371	17,288	16,821
Chemicals and allied products.....	1,081	1,050	1,034	1,095	1,040	1,025	3,447	3,463	3,458	3,432	3,373	3,383
Petroleum and coal products.....	462	484	502	455	481	473	1,244	1,248	1,239	1,282	1,290	1,286
Rubber and plastics products, n.e.c.....	379	360	358	382	362	331	1,301	1,272	1,255	1,298	1,252	1,190
All other nondurable goods industries.....	3,803	3,706	3,711	3,663	3,669	3,397	11,476	11,411	11,443	11,359	11,373	10,962

^PPreliminary.

^RRevised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP
(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1971	Dec. 1972 ^p	Nov. 1972 ^r	Oct. 1972	Dec. 1971
All manufacturing industries, total.....	1.62	1.60	1.64	1.76	2.15	2.11	2.12	2.13
Durable goods industries, total.....	1.93	1.89	1.92	2.13	2.55	2.51	2.52	2.57
Stone, clay, and glass products.....	1.11	1.11	1.12	1.29	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.60	1.67	1.68	2.00	1.41	1.48	1.45	1.31
Fabricated metals.....	2.16	2.16	2.14	2.27	3.29	3.28	3.23	3.38
Machinery, except electrical.....	2.35	2.35	2.38	2.56	2.57	2.52	2.51	2.39
Electrical machinery.....	2.08	2.03	2.12	2.19	3.08	2.99	3.09	3.21
Transportation equipment.....	2.02	1.88	1.88	2.22	5.82	5.46	5.26	5.72
Instruments and related products.....	2.40	2.33	2.40	2.49	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.23	1.23	1.28	1.33	0.51	0.49	0.49	0.44
Food and kindred products.....	0.93	0.94	0.99	1.02	(X)	(X)	(X)	(X)
Tobacco products.....	4.76	4.35	4.37	4.62	(X)	(X)	(X)	(X)
Textile mill products.....	1.52	1.59	1.74	1.67	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.18	1.14	1.16	1.27	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.30	1.37	1.39	1.49	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.90	0.91	0.95	1.06	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.63	1.47	1.47	1.51	(X)	(X)	(X)	(X)

(NA) Not available. ^pPreliminary. ^rRevised. (X) Not applicable.

¹Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this



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definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories-- End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.